application by application number and filing date is enclosed with this Response to Office Action.

The new declaration indicates the filing date listed for application serial number 09/550,538 is 04/14/00.

2. The Examiner has objected to the drawings because of the following informalities:

a) Numeral 46 (described on page 11, line 16) is not shown. Applicant has found only one occurrence of reference numeral 46 in the specification at page 10 line 15. The specification has been amended at page 10 lines 14 and 15 eliminating reference numeral 46. No new matter is added.

b) In Figure 2, numeral 31 appears to be inaccurate and it seems that it should be deleted and it seems that it should be relocated generally in an area under numeral 75 with a lead line that extends to the horizontal surface under the lead line for numeral 75 and on which plate 45 slides. Figure 2 has been amended and has been forwarded together with a letter to the Official Draftsman. A copy of the changed drawing is attached for the Examiner's consideration. No new matter is added.

c) In Figure 3, numerals 31 and 32 appear to be inaccurate since they are described as faces, and seems that numeral 31 should be deleted (since it is not visible in this view), and numeral 32 should be deleted and relocated and underlined on the lower upwardly facing surface of 29 (e.g., it could be located below numeral 33). Figure 3 has been amended and has been forwarded together with a letter to the Official Draftsman. A copy of the changed drawing is attached for the Examiner's consideration. No new matter is added.

Applicant respectfully submits that the Objections to the Drawings are moot in light of the amendments and respectfully requests that the objection be withdrawn.

3. The Examiner has objected to the disclosure because of the following informalities:

a) On page 8, line 27, "includes" appears to be inaccurate since the second face 32 is part of monolithic portion 29 and movable plate 48 is slidably movable on second face 32. Applicant has amended the specification at page 8 to provide as follows: "Second moveable plate 48 is slideable against second face 32". No new matter is added.

b) On page 8, in lines 24 and 25, numeral 39 is inaccurate and should read --41--. Applicant has amended the application at page 8 accordingly. No new matter is added.

c) On page 9, line 6 "to first face 31" appears to be inaccurate. Applicant has amended the specification at page 9 to provides as follows: "Tensive cutting assembly 10 includes first tensionable cutting member 20a removably mountable to first raised portion 34 and first movable plate 45". No new matter is added.

d) On page 9, in line 7, "to second face 32" appears to be inaccurate. Applicant has amended the specification at page 9 to provide as follows, "Similarly, second tensionable cutting member 20b is removably mountable to second raised portion 35 and second moveable plate 48." No new matter is added.

e) On page 9, in line 30, numeral 39 is inaccurate and should read --41--. Applicant has amended the application at page 9, accordingly. No new matter is added.

f) On page 10, line 4, "is" should be deleted for clarity. Amendment has not been made in order to accommodate amended wording set forth and discussed at (g) following.

g) On page 10, line 4, "to first face 31" appears to be inaccurate. Applicant has amended the specification at page 10 to provide as follows, ". . .first tensionable cutting member 20a is attached to first raised portion 34 and first movable plate 45 of tensive cutting head 30 presenting first array 27a. No new matter is added.

h) On page 10, in lines 5-6, "to second face 32" appears to be inaccurate. Applicant has amended the specification at page 10 to provide as follows,

"Similarly, second tensionable cutting member 20b attached to second raised portion 35 and second moveable plate 48 of tensive cutting head 30 presenting second array 27b . . . ". No new matter is added.

i) On page 11, line 5, "20b" appears to be inaccurate, and it seems that it should be changed to --20a--. Amendment has been made accordingly. No new matter is added.

j) On page 11, in line 8, it seems that --of- should be inserted before "first". Amendment has been made accordingly. No new matter is added.

k) On page 11, in line 9, "upper end" is unclear as to what is the "upper" end, and it seems that "upper" should be deleted. Amendment has been made accordingly. No new matter is added.

l) On page 11, in line 12, "upper end" is unclear as to what is the "upper" end of a hole. Applicant has amended the specification at page 11 to provide as follows, "Hole 57a is configured having first seat 82." No new matter is added.

m) On page 11, in line 16, "85" is not shown and appears to be inaccurate, and it seems that it should be changed to --85--. Amendment has been made accordingly. No new matter is added.

n) On page 12, line 2, "92" is inaccurate and should be changed to --93--. Amendment has been made accordingly. No new matter is added.

o) On page 12, in line 17, "to first face 31" appears to be inaccurate. Applicant has amended the specification at page 12 to provide as follows, ". . . first tensionable cutting member 20a is attached to first raised portion 34 and first movable plate 45 . . .". No new matter is added.

p) On page 12, in line 22, "on first face 31" appears to be inaccurate. Applicant has amended the specification at page 12 to provide as follows, ". . . first tensionable cutting member 20a is attached to first raised portion 34 and first movable plate 45 . . .". No new matter is added.

q) On page 13, line 5, "on second face 32" appears to be inaccurate. Applicant has amended the specification at page 13 to provide as follows,

". . . to second raised portion 35 and second moveable plate 48. . .". No new matter is added.

r) On page 13, in line 6, "on first face 31" appears to be inaccurate. Applicant has amended the specification at page 13 to provide as follows, ". . . first tensionable cutting member 20a is attached to first raised portion 34 and first movable plate 45 . . .". No new matter is added.

Applicant respectfully submits that the Examiner's objections to the specification should be withdrawn.

5. The Examiner has rejected Claims 1 - 10 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Particularly, the Examiner asserts the following:

a) In claim 1, line 4, "a first end a second end" is vague and indefinite as to what is being set forth. Applicant respectfully disagrees. All that is being set forth is structure inherent to the cutting member described and set forth in the specification.

> "According to the present invention a tensive cutting assembly includes a tensionable cutting member formed of a strip of material, typically, metal which is formed having a serpentine configuration." Application page 2, lines 15 – 17.

A strip of material inherently includes a first and a second end. To claim this inherent structure is by no means vague or indefinite. Nevertheless, Applicant has amended Claim 1 to define "a cutting member formed of a strip of material".

b) In claim 1, it seems that a comma --,- should be inserted after "first end" or the like. Amendment has been made to Claim 1 inserting the comma as indicated. No new matter is added.

c) In claim 1, in line 5, "opposing bends" is vague and indefinite. Amendment has been made to Claim 1 eliminating the reference to opposing bends. No new matter is added.

d) In claim 1, in lines 5-6, the recitation "a plurality of leg segments interconnecting a second plurality of opposing bends" renders the claims vague and indefinite. Amendment has been made to Claim 1 eliminating the reference to a plurality of leg segments interconnecting a second plurality of opposing bends. No new matter is added.

e) In claim 1, in line 7, it seems that a comma --,- should be inserted after "returns" for clarity. Amendment has been made to Claim 1 inserting the comma as indicated. No new matter is added.

f) In claim 7, line 2, "having" renders the claim vague and indefinite, and it seems that it should be deleted or the like. Amendment has been made to Claim 7 deleting the word "having" as indicated. No new matter is added.

g) In claim 8, line 5, "a first end a second end" is vague and indefinite as to what is being set forth.

Applicant respectfully disagrees. All that is being set forth is structure inherent to the cutting member described and set forth in the specification.

> "According to the present invention a tensive cutting assembly includes a tensionable cutting member formed of a strip of material, typically, metal which is formed having a serpentine configuration." Application page 2, lines 15 – 17.

A strip of material inherently includes a first and a second end. To claim this inherent structure is by no means vague or indefinite. Nevertheless, Applicant has amended Claim 8 to define "a cutting member formed of a strip of material".

h) In claim 8, line 5, it seems that a comma --,- should be inserted after "first end" or the like. Amendment has been made to Claim 8 inserting the comma as indicated. No new matter is added.

i) In claim 8, in line 6, "opposing bends" is vague and indefinite. Amendment has been made to Claim 8 eliminating the reference to opposing bends. No new matter is added.

j) In claim 8, in lines 6 - 7, the recitation "a plurality of leg segments interconnecting a second plurality of opposing bends" renders the claims

vague and indefinite. Amendment has been made to Claim 8 eliminating the reference to a plurality of leg segments interconnecting a second plurality of opposing bends. No new matter is added.

k) In claim 8, in line 8, it seems that a comma --,- should be inserted after "returns" for clarity. Amendment has been made to Claim 8 inserting the comma as indicated. No new matter is added.

l) In claim 8, in line 9, "an aperture" is vague and indefinite as to whether it refers to that set forth in line 2 or to another such aperture. Amendment has been made to Claim 8 deleting the reference to "an aperture" at line 2. No new matter is added.

m) In claim 8, in line 12, "having" renders the claim vague and indefinite, and it seems that it should be deleted or the like. Amendment has been made to Claim 7 deleting the word "having" as indicated. No new matter is added.

Applicant respectfully submits that the Examiner's rejections to Claims 1 - 10 under 35 U.S.C. 112, second paragraph, should be withdrawn.

6. Applicant believes the application is in condition for allowance and respectfully requests the same. If the Examiner is of a differing opinion he/she is hereby requested to conduct a telephonic interview with the undersigned attorney.

Joseph W. Holland
Reg. No. 38,919
(208) 336-1234

CERTIFICATE OF MAILING

I HEREBY CERTIFY that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, DC 20231 on:
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Date: DECEMBER 10, 2001
Signature: Maggie Deeds
Printed Name: MAGGIE DEEDS

tensive cutting assembly 10. Food product P passes through tensive cutting assembly housing 103 and is discharged in outlet tube 104. From this point, the sliced food product P is carried through processed food product discharge 105 to de-watering conveyor 106.

Figure 2 shows tensive cutting assembly 10 including tensive cutting head 30. Tensive cutting head 30 includes monolithic portion 29 which includes first face 31 and a second face (not shown in Figure 2). Aperture 33 is formed through the cross-section of monolithic portion 29 of cutting head 30. In the embodiment of the invention shown in Figure 2, the first and second opposing head members include first moveable plate 45 and first raised portion 34 respectively. Tensive cutting head 30 includes first plurality of returns 36a. In this case, first moveable plate 45 includes first moveable set of returns 38 and first raised portion 34 is configured including first fixed set of returns 39. First tensionable cutting member 20a, including leg segments 23, is positioned about first plurality of returns 36a with first end 21a and second end 21b secured in first clamping assembly 50a and second clamping assembly 50b respectively.

Referring again to Figure 2, monolithc portion 29 of tensive cutting head 30 is configured having first face 31 which includes first raised portion 34 including plurality of returns 36a. Plurality of returns 36a are divided into first fixed set of returns 39 and first moveable set of returns 38. First moveable plate 45 is held against first face 31 in a slidingly adjustable relationship to first raised portion 34 and inner face 75. The distance between inner face 75 and inner face 76 of first movable plate 45 is adjustable using first tension adjustment screw 55a (shown in Figure 3), and second tension adjustment screw 55b.

Referring to Figure 3, tensive cutting head 30 is formed having monolithic portion 29 which is configured having first raised portion 34 on first face 31 and second raised portion 35 on second face 32. <u>Second moveable plate 48 is slideable against second face 32</u>. [Second face 32 also includes second moveable plate 48 and a plurality of returns 36b which are divided into second fixed set of returns 39 and second moveable set of returns 40.] Second raised portion 35 includes second fixed set of returns [39] <u>41</u> and second moveable plate 48 includes second moveable set of returns 40. Second movable plate 48

tensive cutting assembly 10. Food product P passes through tensive cutting assembly housing 103 and is discharged in outlet tube 104. From this point, the sliced food product P is carried through processed food product discharge 105 to de-watering conveyor 106.

Figure 2 shows tensive cutting assembly 10 including tensive cutting head 30. Tensive cutting head 30 includes monolithic portion 29 which includes first face 31 and a second face (not shown in Figure 2). Aperture 33 is formed through the cross-section of monolithic portion 29 of cutting head 30. In the embodiment of the invention shown in Figure 2, the first and second opposing head members include first moveable plate 45 and first raised portion 34 respectively. Tensive cutting head 30 includes first plurality of returns 36a. In this case, first moveable plate 45 includes first moveable set of returns 38 and first raised portion 34 is configured including first fixed set of returns 39. First tensionable cutting member 20a, including leg segments 23, is positioned about first plurality of returns 36a with first end 21a and second end 21b secured in first clamping assembly 50a and second clamping assembly 50b respectively.

Referring again to Figure 2, monolithc portion 29 of tensive cutting head 30 is configured having first face 31 which includes first raised portion 34 including plurality of returns 36a. Plurality of returns 36a are divided into first fixed set of returns 39 and first moveable set of returns 38. First moveable plate 45 is held against first face 31 in a slidingly adjustable relationship to first raised portion 34 and inner face 75. The distance between inner face 75 and inner face 76 of first movable plate 45 is adjustable using first tension adjustment screw 55a (shown in Figure 3), and second tension adjustment screw 55b.

Referring to Figure 3, tensive cutting head 30 is formed having monolithic portion 29 which is configured having first raised portion 34 on first face 31 and second raised portion 35 on second face 32. Second moveable plate 48 is slideable against second face 32. Second raised portion 35 includes second fixed set of returns 41 and second moveable plate 48 includes second moveable set of returns 40. Second movable plate 48

is held against second face 32 in a slidingly adjustable relationship to second raised portion 35. Aperture 33 is formed through the cross section of tensive cutting head 30 allowing passage of food product through tensive cutting assembly 10.

Tensive cutting assembly 10 includes first tensionable cutting member 20a removably mountable to [first face 31] first raised portion 34 and first movable plate 45 of tensive cutting head 30 and second tensionable cutting member 20b is removably mountable to [second face 32] second raised portion 35 and second moveable plate 48 of tensive cutting head 30. First tensionable cutting member 20a and second tensionable cutting member 20b are formed from a strip of sheet metal and include a plurality of leg segments 23 and a plurality of bends 24 producing a continuous and generally serpentine configuration. First tensionable cutting member 20a is further configured having first end 21a and second end 21b. Second tensionable cutting member 20b is similarly configured having first end 22a and second end 22b. Either first edge 25 or second edge 26 may be employed as a cutting edge depending upon orientation when installed in tensive cutting head 30.

Referring to Figure 3, The distance between inner face 77 of second raised portion 35 and inner face 78 of second movable plate 48 is adjustable using third tension adjustment screw 55c and fourth tension adjustment screw 55d.

As shown in Figure 3, third tension adjustment screw 55c engages third threaded aperture 56c (not shown), and seats in third hole 57c. Similarly, fourth tension adjustment screw 55d engages fourth threaded aperture 56d (not shown), and seats in fourth hole 57d.

Second movable plate 48 is secured in position on second face 32 by third retaining screw 73c which passes through third slot 74c and fourth retaining screw 73d which passes through fourth slot 74d. Second moveable set of returns 40 is formed on the face of second moveable plate 48 near a second opposing peripheral edge of second moveable plate 48 such that when second tensionable cutting member 20b is positioned about second fixed set of returns [39] 41 and

is held against second face 32 in a slidingly adjustable relationship to second raised portion 35. Aperture 33 is formed through the cross section of tensive cutting head 30 allowing passage of food product through tensive cutting assembly 10.

Tensive cutting assembly 10 includes first tensionable cutting member 20a removably mountable to first raised portion 34 and first movable plate 45 of tensive cutting head 30 and second tensionable cutting member 20b is removably mountable to second raised portion 35 and second moveable plate 48 of tensive cutting head 30. First tensionable cutting member 20a and second tensionable cutting member 20b are formed from a strip of sheet metal and include a plurality of leg segments 23 and a plurality of bends 24 producing a continuous and generally serpentine configuration. First tensionable cutting member 20a is further configured having first end 21a and second end 21b. Second tensionable cutting member 20b is similarly configured having first end 22a and second end 22b. Either first edge 25 or second edge 26 may be employed as a cutting edge depending upon orientation when installed in tensive cutting head 30.

Referring to Figure 3, The distance between inner face 77 of second raised portion 35 and inner face 78 of second movable plate 48 is adjustable using third tension adjustment screw 55c and fourth tension adjustment screw 55d.

As shown in Figure 3, third tension adjustment screw 55c engages third threaded aperture 56c (not shown), and seats in third hole 57c. Similarly, fourth tension adjustment screw 55d engages fourth threaded aperture 56d (not shown), and seats in fourth hole 57d.

Second movable plate 48 is secured in position on second face 32 by third retaining screw 73c which passes through third slot 74c and fourth retaining screw 73d which passes through fourth slot 74d. Second moveable set of returns 40 is formed on the face of second moveable plate 48 near a second opposing peripheral edge of second moveable plate 48 such that when second tensionable cutting member 20b is positioned about second fixed set of returns 41 and

second moveable set of returns 40, leg segments 23 of second tensionable cutting member 20b extend across aperture 33.

In the embodiment of the invention shown in Figure 3, first tensionable cutting member 20a [is] attached to [first face 31] first raised portion 34 and first movable plate 45 of tensive cutting head 30 present[s]ing first array 27a, and second tensionable cutting member 20b attached to [second face 32] second raised portion 35 and second moveable plate 48 of tensive cutting head 30 present[s]ing second array 27b which is rotated at approximately 90° on a plane substantially parallel to first array 27a.

As shown in Figure 4, first tension adjustment screw 55a engages first threaded aperture 56a and seats in first hole 57a. Similarly, second tension adjustment screw 55b engages second threaded aperture 56b and seats in second hole 57b. First moveable plate 45 is secured in position on first face 31 by first retaining screw 73a which passes through first slot 74a and second retaining screw 73b which passes through second slot 74b. First moveable set of returns 38 is formed on the face of first moveable plate 45 near peripheral edge 46 of first moveable plate 45 such that when first tensionable cutting member 20a is positioned about first fixed set of returns 39 and first moveable set of returns 38, leg segments 23 of first tensionable cutting member 20a extend across aperture 33.

Referring to Figure 4, returns 36a, which are typical of the returns shown, are arranged sequentially, with an equal distance or return interval I being observed between each of the sequential returns. Opposing sets of returns have a lateral offset O substantially equal to the distance between two sequential tensionable cutting member leg segments.

Referring to Figure 4, tensive cutting head 30 also includes first clamping assembly 50a for securing first end 21a of tensionable cutting member 20a to tensive cutting head 30 and second clamping assembly 50b connected to tensive cutting head 30 for securing second end 21b of tensionable cutting member 20a to tensive cutting head 30. Similarly, referring to Figure 3, tensive cutting head 30 also includes third clamping assembly 50c connected to tensive cutting head 30 for securing first end 22a of tensionable cutting member 20b to tensive cutting head 30 and fourth clamping assembly 50d connected to tensive cutting head 30

second moveable set of returns 40, leg segments 23 of second tensionable cutting member 20b extend across aperture 33.

In the embodiment of the invention shown in Figure 3, first tensionable cutting member 20a attached to first raised portion 34 and first movable plate 45 of tensive cutting head 30 presenting first array 27a, and second tensionable cutting member 20b attached to second raised portion 35 and second moveable plate 48 of tensive cutting head 30 presenting second array 27b which is rotated at approximately 90° on a plane substantially parallel to first array 27a.

As shown in Figure 4, first tension adjustment screw 55a engages first threaded aperture 56a and seats in first hole 57a. Similarly, second tension adjustment screw 55b engages second threaded aperture 56b and seats in second hole 57b. First moveable plate 45 is secured in position on first face 31 by first retaining screw 73a which passes through first slot 74a and second retaining screw 73b which passes through second slot 74b. First moveable set of returns 38 is formed on the face of first moveable plate 45 near peripheral edge 46 of first moveable plate 45 such that when first tensionable cutting member 20a is positioned about first fixed set of returns 39 and first moveable set of returns 38, leg segments 23 of first tensionable cutting member 20a extend across aperture 33.

Referring to Figure 4, returns 36a, which are typical of the returns shown, are arranged sequentially, with an equal distance or return interval I being observed between each of the sequential returns. Opposing sets of returns have a lateral offset O substantially equal to the distance between two sequential tensionable cutting member leg segments.

Referring to Figure 4, tensive cutting head 30 also includes first clamping assembly 50a for securing first end 21a of tensionable cutting member 20a to tensive cutting head 30 and second clamping assembly 50b connected to tensive cutting head 30 for securing second end 21b of tensionable cutting member 20a to tensive cutting head 30. Similarly, referring to Figure 3, tensive cutting head 30 also includes third clamping assembly 50c connected to tensive cutting head 30 for securing first end 22a of tensionable cutting member 20b to tensive cutting head 30 and fourth clamping assembly 50d connected to tensive cutting head 30

for securing second end 22b of tensionable cutting member 20b to tensive cutting head 30.

Referring to Figure 4, first clamping assembly 50a is typical of the clamping assemblies in the shown embodiment and includes lock screw 53 which is tightened against first end 21a of tensionable cutting member [20b] 20a to prevent slippage of first end 21a.

Referring to Figure 5, tensive cutting assembly 10 may include pneumatic failure sensing device 80. Sliding stop 81, is positioned in the distal end of first screw hole 56a. The [upper] end of first sliding stop 81 cooperates with the distal end of first tension adjustment screw 55a. The distal end of first screw hole 56a is sized and configured to permit a sliding fit between first sliding stop 81 and the distal end of first screw hole 56a. [The upper end of f]First hole 57a is configured having first seat 82. The distal end of first sliding stop 81 cooperates with first seat 82 sealing first fluid containment cell 83 when first tension adjustment screw 55a is tightened. First fluid containment cell 83 is shown in fluid communication with first seat 82 by passage [84] 85.

A detail showing the relationship of various elements of failure sensing device 80 is shown in Figure 5. Tensive cutting head 30 includes, in part, first moveable plate 45 and opposing first raised portion 34. First tension adjustment screw 55a is shown inserted in first screw hole 56a. First sliding stop 81 is shown cooperating with the distal end of first tension adjustment screw 55a. First sliding stop 81 has a conical tip which mates with first seat 82. First air line 85 is fluidly connected to first fluid containment cell 83.

Referring to Figure 6, failure sensing device 80 is shown including first air line 85 and second air line 87 which are removably attachable to tensive cutting head 30 of tensive cutting assembly 10. Pressure is provided to the system by a gas pressure source, in this instance, compressor 90. Pressure is regulated from the compressor by pressure regulator 95 and flow may be restricted by flow restricter 94. Pressure gauge 92 senses and displays system pressure. Pressure switch 93 is shown fluidly connected in series with compressor 90, first air line 85 and second air line 87. In the event of a failure or breakage of first

for securing second end 22b of tensionable cutting member 20b to tensive cutting head 30.

Referring to Figure 4, first clamping assembly 50a is typical of the clamping assemblies in the shown embodiment and includes lock screw 53 which is tightened against first end 21a of tensionable cutting member 20a to prevent slippage of first end 21a.

Referring to Figure 5, tensive cutting assembly 10 may include pneumatic failure sensing device 80. Sliding stop 81, is positioned in the distal end of first screw hole 56a. The end of first sliding stop 81 cooperates with the distal end of first tension adjustment screw 55a. The distal end of first screw hole 56a is sized and configured to permit a sliding fit between first sliding stop 81 and the distal end of first screw hole 56a. First hole 57a is configured having first seat 82. The distal end of first sliding stop 81 cooperates with first seat 82 sealing first fluid containment cell 83 when first tension adjustment screw 55a is tightened. First fluid containment cell 83 is shown in fluid communication with first seat 82 by passage 85.

A detail showing the relationship of various elements of failure sensing device 80 is shown in Figure 5. Tensive cutting head 30 includes, in part, first moveable plate 45 and opposing first raised portion 34. First tension adjustment screw 55a is shown inserted in first screw hole 56a. First sliding stop 81 is shown cooperating with the distal end of first tension adjustment screw 55a. First sliding stop 81 has a conical tip which mates with first seat 82. First air line 85 is fluidly connected to first fluid containment cell 83.

Referring to Figure 6, failure sensing device 80 is shown including first air line 85 and second air line 87 which are removably attachable to tensive cutting head 30 of tensive cutting assembly 10. Pressure is provided to the system by a gas pressure source, in this instance, compressor 90. Pressure is regulated from the compressor by pressure regulator 95 and flow may be restricted by flow restricter 94. Pressure gauge 92 senses and displays system pressure. Pressure switch 93 is shown fluidly connected in series with compressor 90, first air line 85 and second air line 87. In the event of a failure or breakage of first

tensionable cutting member 20a, air passes through the system lowering pressure activating pressure switch 93. As shown in Figure 6, pressure switch [92] 93 may be attached to a variety of components for signaling or controlling other components of the cutting system. Figure 6 shows pressure switch 93 electrically connected to motor relay 96, product pump motor 97, product flow gate 98 and control circuit 99.

Tensive cutting assembly 10 may also include one or more face plates. Referring to Figure 7, face plate 70 is shown removably attached to tensive cutting head 30 by face plate screws 71. Face plate screws 71 pass through tensive cutting head 30 and secure face plate 70 to tensive cutting head 30 engaging face plate screw holes 72 shown in Figure 4.

In use, referring to Figures 2 and 3, first tension adjustment screw 55a, second tension adjustment screw 55b are backed out so that when first moveable plate 45 is placed on first face 31 of tensive cutting head 30, interface 75 of raised portion 34 and interface 76 of first moveable plate 45 contact one another. Referring to Figures 2, 3 and 4, first tensionable cutting member 20a is attached to [first face 31] first raised portion 34 and first movable plate 45 of tensive cutting head 30 by positioning bends 24 about returns 36a. The ends of tensionable cutting member 20a are positioned so as to engage the clamping assemblies. Referring to Figure 4, with reference to clamping assembly 50a, first end 21a of tensionable cutting member 20a is secured by lock screw 53.

Once first tensionable cutting member 20a is positioned on [first face 31] first raised portion 34 and first movable plate 45 of tensive cutting head 30, first tension adjustment screw 55a and second tension adjustment screw 55b are turned so as to increase the distance between first raised portion 34 and first movable plate 45. In so doing, tensionable cutting member 20a is tensioned about first fixed set of returns 39 and first moveable set of returns 38.

As shown in Figure 4, first tensionable cutting member 20a tightens across bearing faces 43 of first fixed set of returns 39 and first moveable set of returns 38 by a tensile force created by first tension adjustment screw 55a and second tension adjustment screw 55b. The tensive force is transferred to first

tensionable cutting member 20a, air passes through the system lowering pressure activating pressure switch 93. As shown in Figure 6, pressure switch 93 may be attached to a variety of components for signaling or controlling other components of the cutting system. Figure 6 shows pressure switch 93 electrically connected to motor relay 96, product pump motor 97, product flow gate 98 and control circuit 99.

Tensive cutting assembly 10 may also include one or more face plates. Referring to Figure 7, face plate 70 is shown removably attached to tensive cutting head 30 by face plate screws 71. Face plate screws 71 pass through tensive cutting head 30 and secure face plate 70 to tensive cutting head 30 engaging face plate screw holes 72 shown in Figure 4.

In use, referring to Figures 2 and 3, first tension adjustment screw 55a, second tension adjustment screw 55b are backed out so that when first moveable plate 45 is placed on first face 31 of tensive cutting head 30, interface 75 of raised portion 34 and interface 76 of first moveable plate 45 contact one another. Referring to Figures 2, 3 and 4, first tensionable cutting member 20a is attached to first raised portion 34 and first movable plate 45 of tensive cutting head 30 by positioning bends 24 about returns 36a. The ends of tensionable cutting member 20a are positioned so as to engage the clamping assemblies. Referring to Figure 4, with reference to clamping assembly 50a, first end 21a of tensionable cutting member 20a is secured by lock screw 53.

Once first tensionable cutting member 20a is positioned on first raised portion 34 and first movable plate 45 of tensive cutting head 30, first tension adjustment screw 55a and second tension adjustment screw 55b are turned so as to increase the distance between first raised portion 34 and first movable plate 45. In so doing, tensionable cutting member 20a is tensioned about first fixed set of returns 39 and first moveable set of returns 38.

As shown in Figure 4, first tensionable cutting member 20a tightens across bearing faces 43 of first fixed set of returns 39 and first moveable set of returns 38 by a tensile force created by first tension adjustment screw 55a and second tension adjustment screw 55b. The tensive force is transferred to first

tensionable cutting member 20a substantially parallel to force vector V and is distributed substantially equally across the width of tensionable cutting member 20a.

The procedure for installation of second tensionable cutting member 20b [on second face 32] to second raised portion 35 and second moveable plate 48 is similar to the process for installation of first tensionable cutting member 20a [on first face 31] to first raised portion 34 and first movable plate 45 of tensive cutting head 30.

Both first tensionable cutting member 20a and second tensionable cutting member 20b are tightened in the above manner to a point below the yield strength of the material being employed for the tensionable cutting member. Once tensioning is complete, referring to Figure 7, face plate 70 may be attached to tensive cutting head 30 employing face plate screws 71 which engage face plate screw holes 72 as shown in Figure 4.

Referring to Figure 1, the completed tensive cutting assembly 10 is inserted within tensive cutting assembly housing 103. Food product is introduced into food product tank 100. Food product is drawn through food pump 101 into inlet tube 102 and through tensive cutting assembly housing 103. Food product passes first against first tensionable cutting member 20a and then against second tensionable cutting member 20b before being discharged into outlet tube 104 in a stick configuration. From this point the sliced food product is carried through food processing discharge 105 to dewatering conveyor 106.

While this invention has been described with reference to the described embodiments, this is not meant to be construed in a limiting sense. Various modifications to the described embodiments, as well as additional embodiments of the invention, will be apparent to persons skilled in the art upon reference to this description. It is therefore contemplated that the appended claims will cover any such modifications or embodiments as fall within the true scope of the invention.

I claim:

tensionable cutting member 20a substantially parallel to force vector V and is distributed substantially equally across the width of tensionable cutting member 20a.

The procedure for installation of second tensionable cutting member 20b to second raised portion 35 and second moveable plate 48 is similar to the process for installation of first tensionable cutting member 20a to first raised portion 34 and first movable plate 45 of tensive cutting head 30.

Both first tensionable cutting member 20a and second tensionable cutting member 20b are tightened in the above manner to a point below the yield strength of the material being employed for the tensionable cutting member. Once tensioning is complete, referring to Figure 7, face plate 70 may be attached to tensive cutting head 30 employing face plate screws 71 which engage face plate screw holes 72 as shown in Figure 4.

Referring to Figure 1, the completed tensive cutting assembly 10 is inserted within tensive cutting assembly housing 103. Food product is introduced into food product tank 100. Food product is drawn through food pump 101 into inlet tube 102 and through tensive cutting assembly housing 103. Food product passes first against first tensionable cutting member 20a and then against second tensionable cutting member 20b before being discharged into outlet tube 104 in a stick configuration. From this point the sliced food product is carried through food processing discharge 105 to dewatering conveyor 106.

While this invention has been described with reference to the described embodiments, this is not meant to be construed in a limiting sense. Various modifications to the described embodiments, as well as additional embodiments of the invention, will be apparent to persons skilled in the art upon reference to this description. It is therefore contemplated that the appended claims will cover any such modifications or embodiments as fall within the true scope of the invention.

I claim:

Amended Claim 1 Incorporating Amendments

1. A cutting head assembly comprising:

a cutting head including a first set of returns adjustably opposing a second set of returns;

a cutting member formed of a strip of material including a first end, a second end, and a width, the cutting member including a serpentine configuration, the cutting member positioned about the first set of returns, and the second set of returns, the tensionable cutting member extending across an aperture formed through the cutting head, the first end and the second end of the cutting member secured to the cutting head; and

a cutting member tensioning device adjustably attaching the first set of returns and the second set of returns for adjusting a distance between the first set of returns and the second set of returns for tensioning the cutting member.

Amended Claim 2 Incorporating Amendments

2. The cutting head assembly of Claim 1 wherein the cutting member tensioning device further comprises a screw adjustably attaching the first set of returns and the second set of returns for adjusting a distance between the first set of returns and the second set of returns for tensioning the cutting member along a plane substantially parallel to a longitudinal axis of the screw.

Amended Claim 7 Incorporating Amendments

7. The cutting head assembly of Claim 1 wherein the cutting member tensioning device further comprises a pair of screws, each of the pair of screws including a longitudinal axis, the longitudinal axis of each of the pair of screws oriented along a plane substantially parallel to a longitudinal axis of the plurality of leg segments, and each of the pair of screws adjustably attaching the first set of returns and the second set of returns for adjusting a distance between the first set of returns and the second set of returns for tensioning the cutting member along a plane substantially parallel to the longitudinal axis of each of the pair of screws.

Amended Claim 8 Incorporating Amendments

8. A cutting head assembly comprising:

a tensive cutting head including a first set of returns adjustably opposing a second set of returns;

a cutting member formed of a strip of material including a first end, a second end, and a width, the cutting member including a serpentine configuration, the cutting member positioned about the first set of returns and the second set of returns, the tensionable cutting member extending across an aperture formed through the cutting head, the first end and the second end of the cutting member secured to the cutting head; and

a cutting member tensioning device including a pair of screws, each of the pair of screws including a longitudinal axis, and each of the pair of screws adjustably attaching the first set of returns and the second set of returns for adjusting a distance between the first set of returns and the second set of returns for tensioning the cutting member along a plane substantially parallel to the longitudinal axis of each of the pair of screws.

Amended Claim 1 Showing Amendments

1. (Amended) A cutting head assembly comprising:

a cutting head including a first set of returns adjustably opposing a second set of returns;

a cutting member formed of a strip of material including a first end, a second end, and a width, [a first plurality of opposing bends, a plurality of leg segments interconnecting a second plurality of opposing bends, the first plurality of opposing bends] the cutting member including a serpentine configuration, the cutting member positioned about the first set of returns, and the [second plurality of opposing bends positioned about the] second set of returns, [the plurality of leg segments] the tensionable cutting member extending across an aperture formed through the cutting head, the first end and the second end of the cutting member secured to the cutting head; and

a cutting member tensioning device adjustably attaching the first set of returns and the second set of returns for adjusting a distance between the first set of returns and the second set of returns for tensioning the cutting member.

Amended Claim 2 Showing Amendments

2. (Amended) The cutting head assembly of Claim 1 wherein the cutting member tensioning device further comprises a screw adjustably attaching the first set of returns and the second set of returns for adjusting a distance between the first set of returns and the second set of returns for tensioning the cutting member along a plane substantially parallel to a longitudinal axis of the [plurality of leg segments] screw.

Amended Claim 7 Showing Amendments

7. (Amended) The cutting head assembly of Claim 1 wherein the cutting member tensioning device further comprises a pair of screws [having], each of the pair of screws including a longitudinal axis, the longitudinal axis of each of the pair of screws oriented along a plane substantially parallel to a longitudinal axis of the plurality of leg segments, and each of the pair of screws adjustably attaching the first set of returns and the second set of returns for adjusting a distance between the first set of returns and the second set of returns for tensioning the cutting member along a plane substantially parallel to the longitudinal axis of each of the pair of screws.

Amended Claim 8 Showing Amendments

8. A cutting head assembly comprising:

a tensive cutting head [including an aperture formed through the tensive cutting head cross section, the tensive cutting head] including a first set of returns adjustably opposing a second set of returns;

a cutting member <u>formed of a strip of material</u> including a first end, a second end, <u>and a width,</u> [a first plurality of opposing bends, a plurality of leg segments interconnecting a second plurality of opposing bends, the first plurality of opposing bends] <u>the cutting member including a serpentine configuration, the cutting member</u> positioned about the first set of returns and the [second plurality of opposing bends positioned about the] second set of returns, [the plurality of leg segments] <u>the tensionable cutting member</u> extending across an aperture formed through the cutting head, the first end and the second end of the cutting member secured to the cutting head; and

a cutting member tensioning device including a pair of screws [having], each of the pair of screws including a longitudinal axis, [the longitudinal axis of each of the pair of screws oriented along a plane substantially parallel to a longitudinal axis of the plurality of leg segments], and each of the pair of screws adjustably attaching the first set of returns and the second set of returns for adjusting a distance between the first set of returns and the second set of returns for tensioning the cutting member along a plane substantially parallel to the longitudinal axis of each of the pair of screws.